

ABSTRACT OF THE DISCLOSURE

A charge pump circuit in a gate controller provides a pumped gate control voltage to switches of a DC/DC converter. Different input voltages may be applied to the controller and an input voltage higher than the charge pump output could result in circuit damage. A clamp circuit between the input and output prevents the output voltage from being significantly below the input voltage to prevent such damage. The clamp circuit may be a transistor controlled by a comparator or amplifier.